



Headquarters CONR-AFNORTH (1 AF)



Air Force Auxiliary Mission Brief For 2008 AF Emergency Preparedness Liaison Officer (EPLO) Conference

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CAP-USAF/XO**

This Briefing is: UNCLASSIFIED



Outline

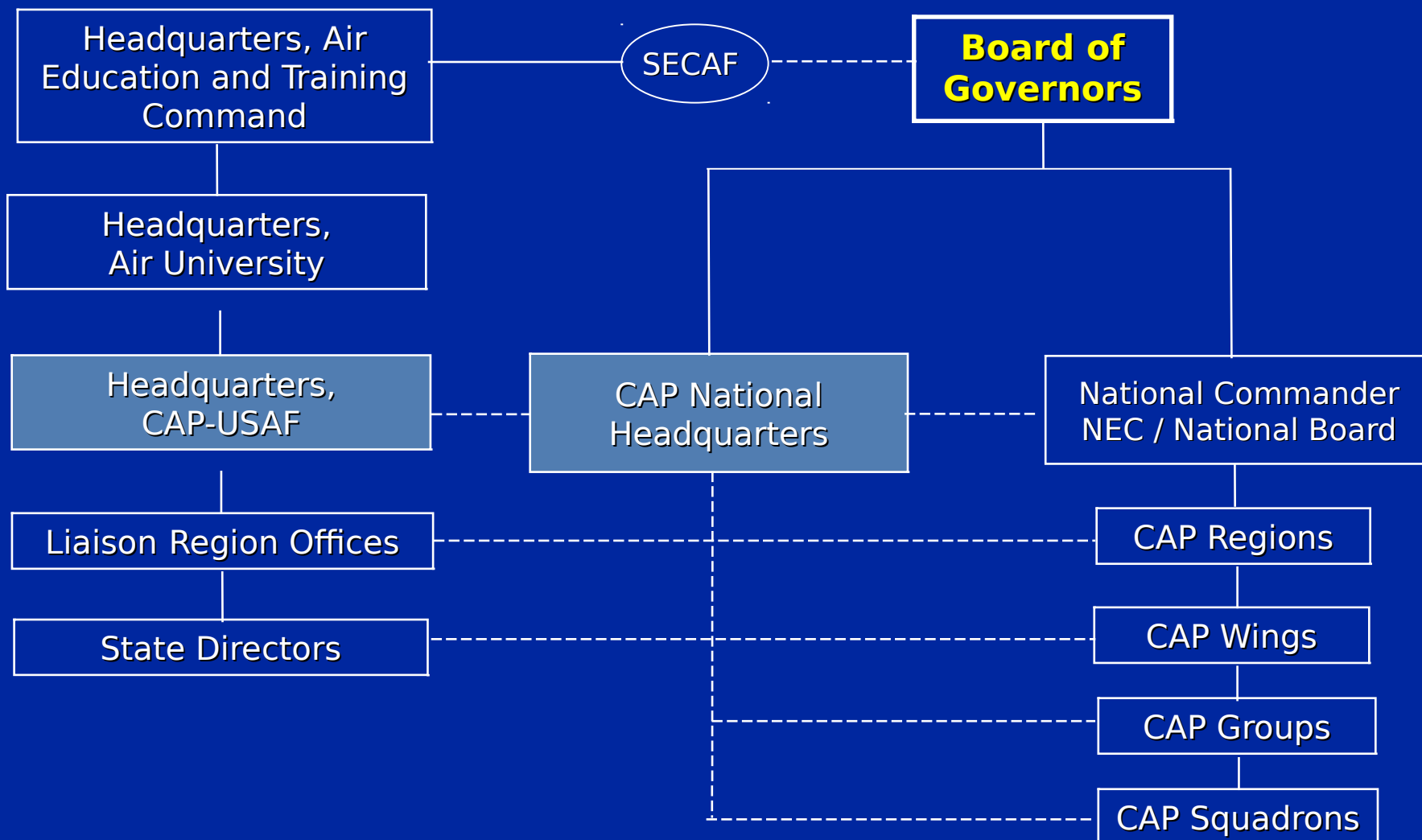


- **Organization**
- **The Mission Approval Process**
- **Platforms / Technology**



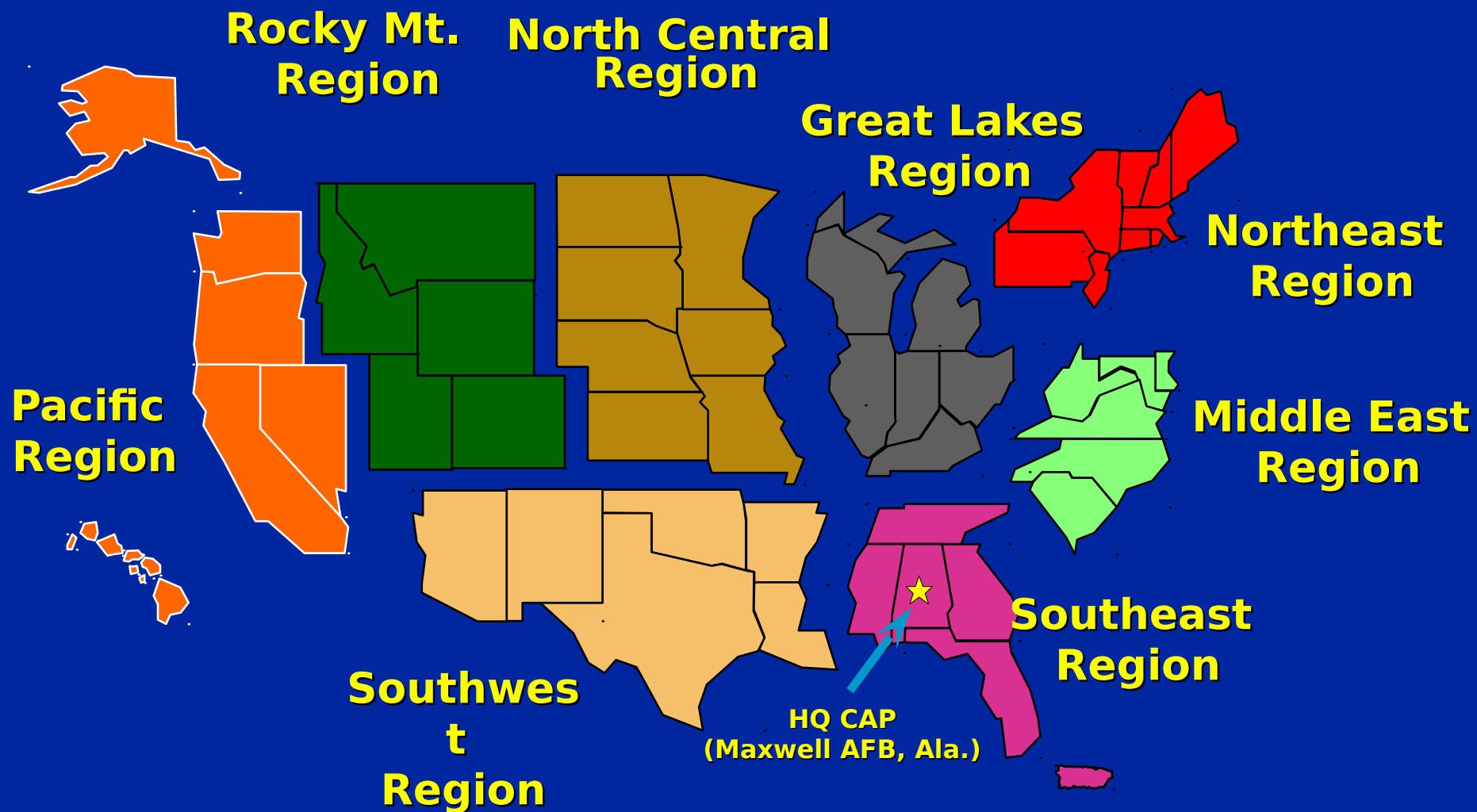


Organizational Structure





Civil Air Patrol Regions





Civil Air Patrol Presence

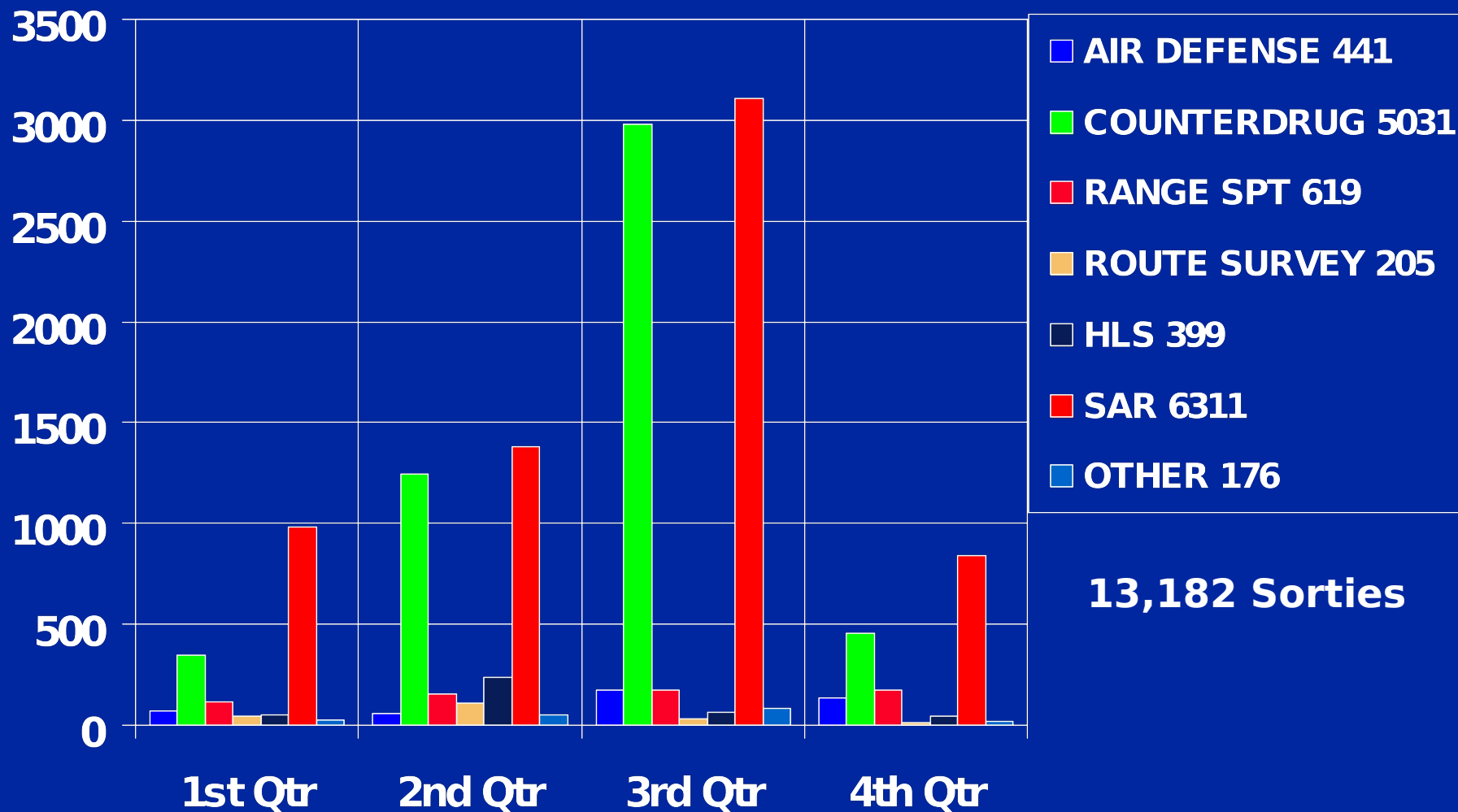


▲ CAP Units

**Overseas
Units**
3 - Japan
2 -
Germany



Calendar Year 07 1st AF Sorties





AFI 10-2701 - AF Auxiliary



- In Accordance With Air Force Instruction (AFI) 10-2701, 1st AF is the mission approval authority for all Air Force assigned missions in the Northern Command (NORTHCOM) Area Of Responsibility (AOR) except:
 - CAP Training flights, Reserve Officer Training Corps (ROTC) flights, Cadet Orientation, Ferry Flights – mission approval for these is through CAP-USAF commander
 - Alaska-11th AF Commander



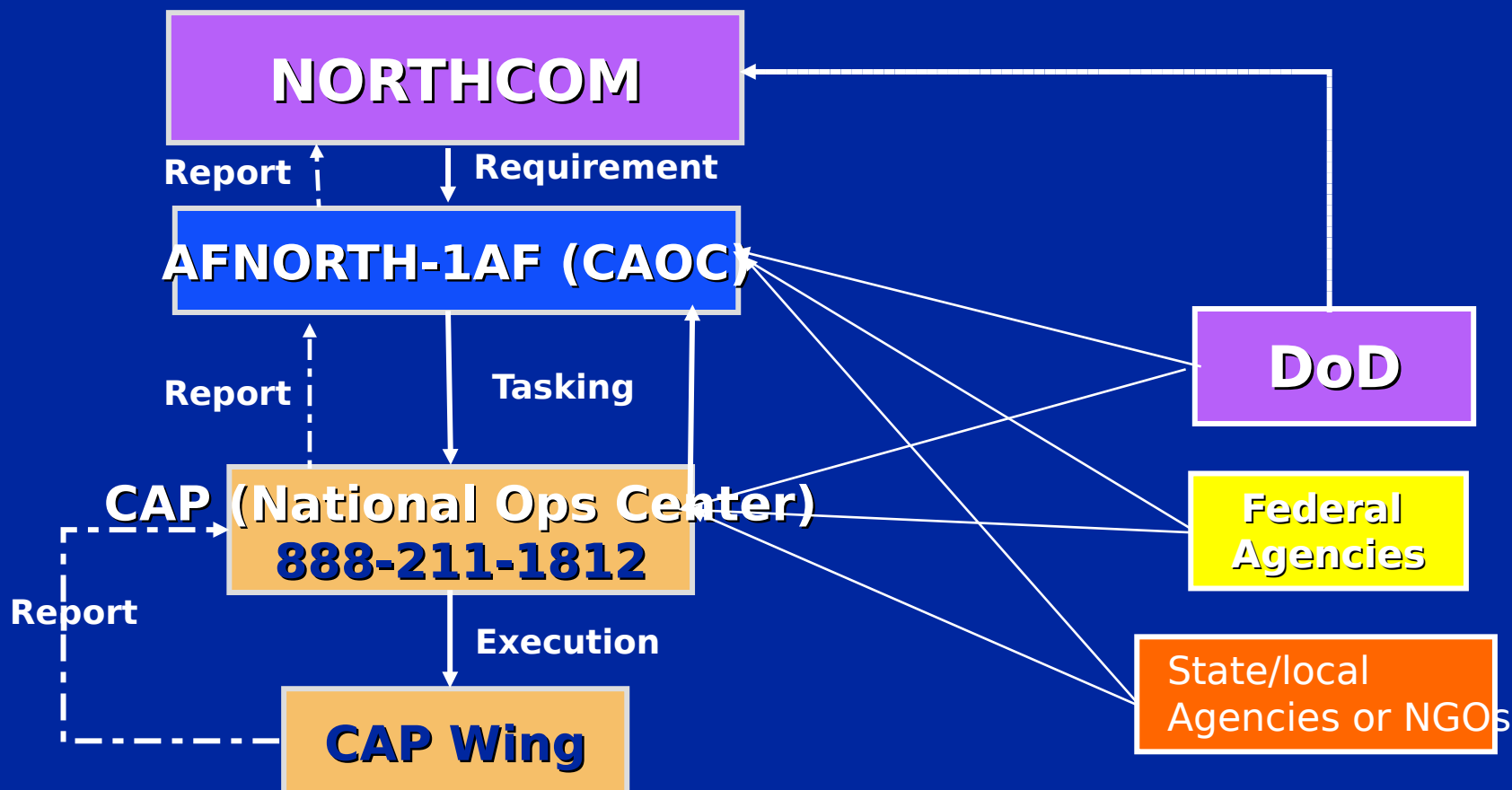
Civil Support Approval Process



- Department of Defense (DoD) policies that govern coordination and approval of requests for support to civil authorities normally do not apply to the Air Force Auxiliary
- The Secretary of the Air Force (SECAF) designee (1/11th CC), may respond directly to civil-support requests, including those involving counter-drug activities, using the services of CAP
- Approval authorities must ensure that CAP missions supporting State/local agencies or Non-Government Organizations (NGO)s as Air Force Assigned Missions (AFAM)s must demonstrate a “federal interest” in the activity
- CAP may only support an agency or department of the Federal government in its capacity as the Air Force Auxiliary



Request for Air Auxiliary



CAP ... Remain Under Military Control/Direction

...



The Approval Process



- All Joint Forces Air Component Commander (JFACC) approved missions (Including AF Aux) are published on the CONR/AFNORTH Air Tasking Order (ATO)
- As of 20 Jan 06, all AF Aux missions receiving JFACC approval have been published on Classified ATO.
 - “Public” Unclassified taskings available through CAP run Web based Mission Information and Reporting System (WMIRS)

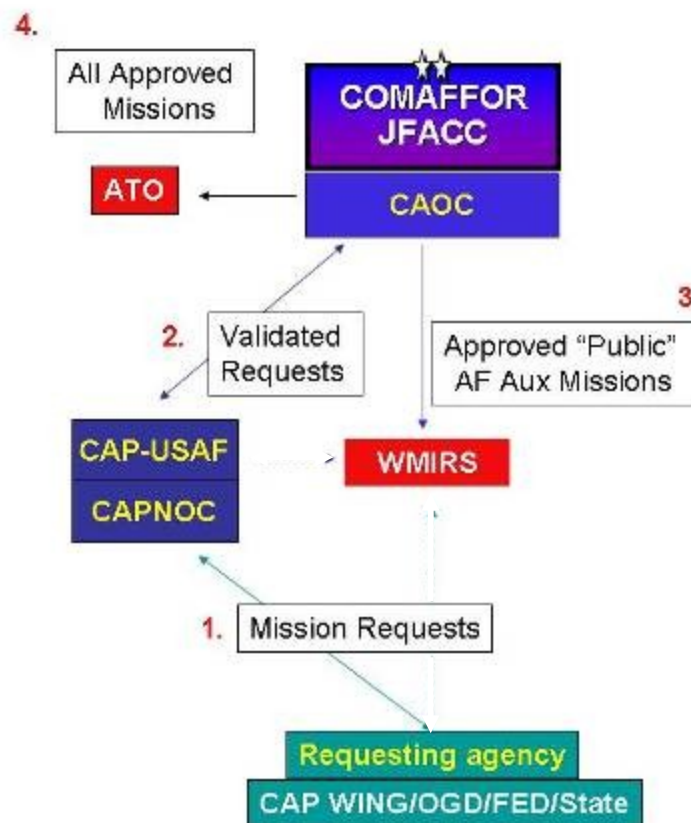


Day to Day Approval Process



- Day to Day
 - Majority of missions
 - Handled by normal ATO process
 - Requests validated by CAPNOC and CAP- USAF
 - Does CAP have Assets/Legal
 - Approval-at bi-weekly ATO approval brief
 - Approved missions will be
 - Updated on WMIRS
 - Published on Classified ATO
 - Tracked daily via AFNORTH Situation Report (SITREP)
 - Mission closeout responsibility of CAP

DAY TO DAY OPERATIONS





Immediate Response Requests



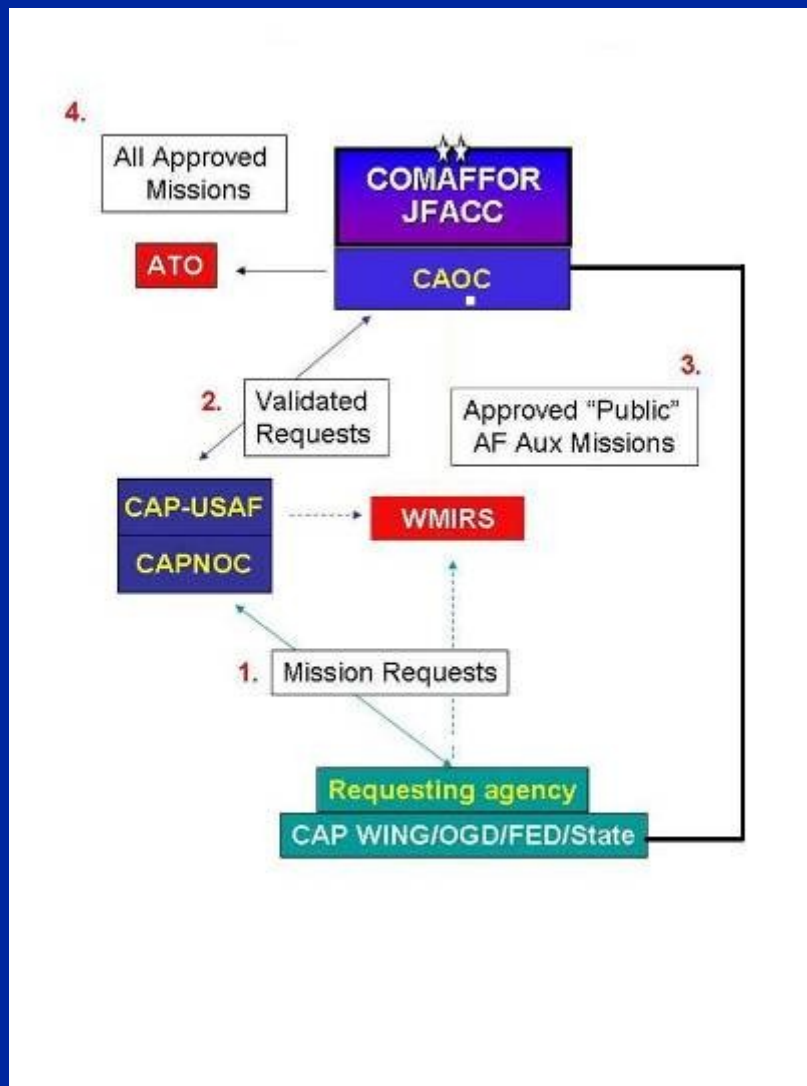
- Immediate response is appropriate when necessary to:
 - Save lives
 - Prevent human suffering
 - Mitigate great property damage under imminently serious conditions
- CAP must receive authorization from the 1AF AFNORTH/CC (Commander) or his/her designee to conduct an immediate response mission



Civil Support Approval Process



- Mission within ATO execution phase
- Requests validated by:
 - CAP National Operations Center (CAPNOC) and CAP-USAF or
 - AFNORTH Senior Duty Officer (SODO)
- Approval authority is the JFACC or his/her designee at CONR/AFNORTH Combined Air Operations Center (CAOC)
 - Available 24/7 365 Days
- Approved missions will be passed via telcon/e-mail to the NOC/Requester
 - Updated on WMIRS
 - Published on Classified ATO





AF AUX Capabilities/Assets



- Aerial Imaging- Ability to image, transmit and download high resolution digital photos from airborne platforms
- Airborne Visual Reconnaissance- Reconnaissance of isolated locations, border and coastal areas, ports and harbors and critical infrastructure
- Satellite Link Airborne Dynamic Retasking
- Light Air Transport / Air Taxi- Capability for human blood or organs, equipment, passengers, or search dog teams to austere or remote airfields.
- Air and Ground Fleet Availability- Fleet of over 530 aircraft, 940 ground vehicles
- Communications Support- VHF and HF capability and aerial communications relay
- Personnel- Cadre of 650+ Chaplains available for weekly religious services or general support.
- Law Enforcement Support- Ability to take law enforcement or VIP personnel aloft for visual reconnaissance of areas of interest

*****Normally can launch within 4 hours



Posse Comitatus Act

- Cannot:
 - Search
 - Seize
 - Arrest
 - Interrogate
 - Direct Law Enforcement Activities (LEA)



Mission Authorities



- Law Enforcement Agents (LEA) Transportation Authority:
 - May transport LEA for coordination and support force protection
 - May not transport prisoners or contraband (some exceptions – chain of custody)
 - May not transport in direct tactical support of LEA operational missions
 - May not transport where hostilities are imminent
- CAP Personnel may make spot reports of suspicious activities to LEAs



Sensitive Information

- Air Force Auxiliary is not an Intelligence Surveillance Reconnaissance (ISR) asset and therefore does not conduct INCIDENT AWARENESS AND ASSESSMENT (IAA) MISSIONS
 - USAF AUXILIARY CONDUCTS CIVIL SUPPORT MISSIONS FOR NON-INTELLIGENCE PURPOSES
- AF Aux Does NOT collect, disseminate, or retain information about U.S. persons
 - All information belongs to the requester
 - USAF can use info for force protection, then dispose
- Information includes:
 - Photographs
 - Video
 - Identifying information



CAP Resources

**950
Vehicle**



**530
Aircraft**



**14,900
Portable
Radios**

**2,100
Fixed Land
Radios**



**56,155
Members
34,621 Juniors
21,473 Cadets**

**8,000
Mobile
Radios**





Platforms



**Gippsland GA-8
(16)**



Cessna 182 (235)

**Can operate with 2500' runway
VHF AM and FM radio**

**Cruise speed 110-135 kts
Range 520-730 NM**



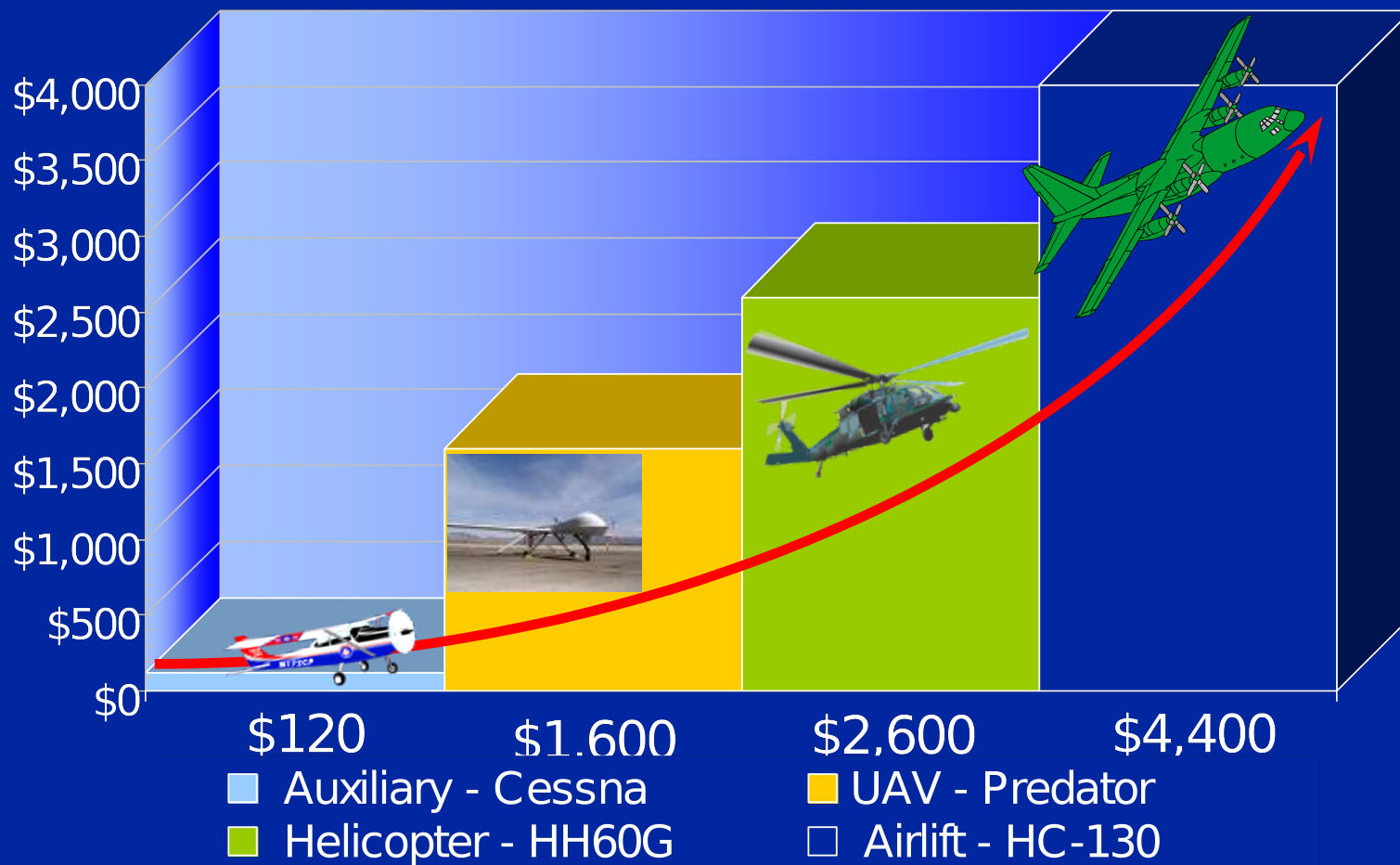
Cessna 206 (22)



Cessna 172 (262)



Cost-effective Force Multiplier





Responding to Emergencies

- 103 lives saved in FY07
- Large Scale effort during Fossett Search
- Wildfires in CA, FL, GA, SD, UT; Floods in IA, KS, NE, OK, SD
- ARCHER system used: to provide oil spill data for Environmental Protection Agency (EPA) and United States Geological Survey (USGS); to assist with Fossett search; to assist State of CA with vegetation and soil analysis after



Fossett Search Mission Base



Kansas flooding



Current Missions/Exercises

January:

MO, IL, WI – Tornado damage assessment for National Oceanographic & Atmospheric Agency (NOAA)

Ongoing:

DC, AZ, SD, CA, FL, VT & TX – Air Defense Sector support

DE, MD, & AZ - Traffic monitoring missions

FL - Eglin AFB Fire Patrol

CA - Imperial Valley counterdrug

SD - Collared animal surveys (mountain lions)

OH, SD, AR, AZ - Low Level route surveys

ME - Escort for new Navy ships

Upcoming:

WA & OR – Prep for Vancouver Olympics

WA & Middle East Region - Ardent Sentry





AFNORTH Exercise



SITUATION: Incident caused damage to the Kentucky Dam on the Tennessee River

REQUIREMENT: Damage assessment photos as soon as possible

RESULT: CAP Images delivered within hours



Pre-mission imagery

Post-mission imagery





Exercises



Federal Emergency Management Agency (FEMA) Heartland Response

- New Madrid Fault Exercise



NORTHCOM Support

- United Defense
- Determined Promise
- Top Officials 3/Ardent



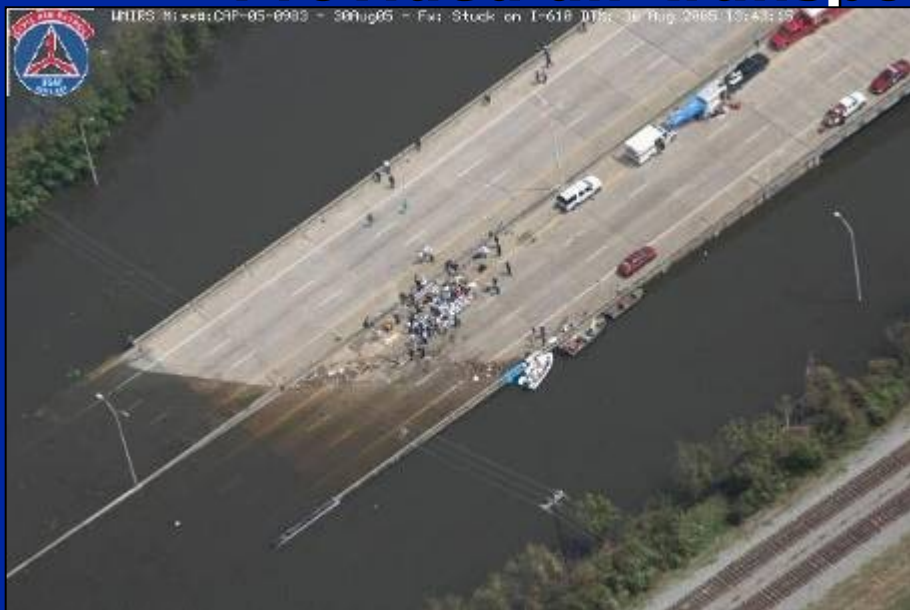


Hurricane Support



Hurricanes Katrina, Rita, Ophelia and Wilma

- 1,048 Air Sorties
- 2,023 Flight Hours; 131 Ground Team Missions
- Provided air transportation for hundreds of





Additional Support



- **Critical infrastructure**
- **Restricted or sensitive areas**
- **Borders**





Operations



SDIS

Satellite-Transmitted Digital Imaging System

- Status
 - 100 systems in service now

ARCHER

Airborne Real-time Cueing Hyperspectral Enhanced Recon

- Status
 - 16 systems fielded





SDIS



What is SDIS?

Satellite-transmitted

Digital

Imaging

System





SDIS



Digital Photo
automatically loaded
into aircraft laptop



Locate the target.
Take a digital photo

Image attached to an
e-mail and sent via
satellite phone



E-mail with
image sent
by satellite
to Globalstar
Internet
Gateway

Globalstar USA

World Wide Web



**Our Customers View in
WMIRS**



SDIS



Technology that enables CAP to send high resolution digital imagery from CAP aircraft to anyone anywhere in the world

Images are sent as JPEG attachments via standard e-mail to multiple addresses and/or a password-protected website

Imagery is transmitted near real-time. Files take less than 2 minutes to transmit.





SDIS



WMIRS MissP-LIXOS-SER04-2664 - 14Aug04 - Trailers 27-20.80N 81-58.11W DTM: 14 Aug 2004 18:34:21



21 03 2004 13:02

WMIRS MissK-TNWC-HEARTLAND-RESPONSE-04 - 21Mar04 - Bridge, Dyersburg, TN 03 DTM: 21 Mar 2004 13:22:17



ARCHER



What is ARCHER?

Airborne

Real-Time

Cueing

Hyperspectral

Enhanced

Recon





ARCHER



- **ARCHER is a custom-designed system of hyperspectral imaging (HSI) hardware and software.**
- HSI is a technology that allows a sensor on a moving platform to **detect and/or gather reflected radiation** (light) from man-made or natural objects on the ground.
- Hyperspectral Imaging will **support current and future CAP missions**
 - Search and Rescue (SAR)
 - Disaster Relief (DR)
 - Homeland Security (HLS)



ARCHER



ARCHER executes three separate algorithms for target acquisition and identification:

- **Spectral signature matching:** detects specific spectral signatures using matched filters (find things with known spectral properties)
 - Potential Missions: HLS
- **Anomaly detection:** detects spectral anomalies (things that do not “belong”)
 - Potential Missions: Search and Rescue, Disaster Relief
- **Change detection:** detects changes over time through a pixel-by-pixel comparison.
 - Potential Missions: HLS, Disaster Relief



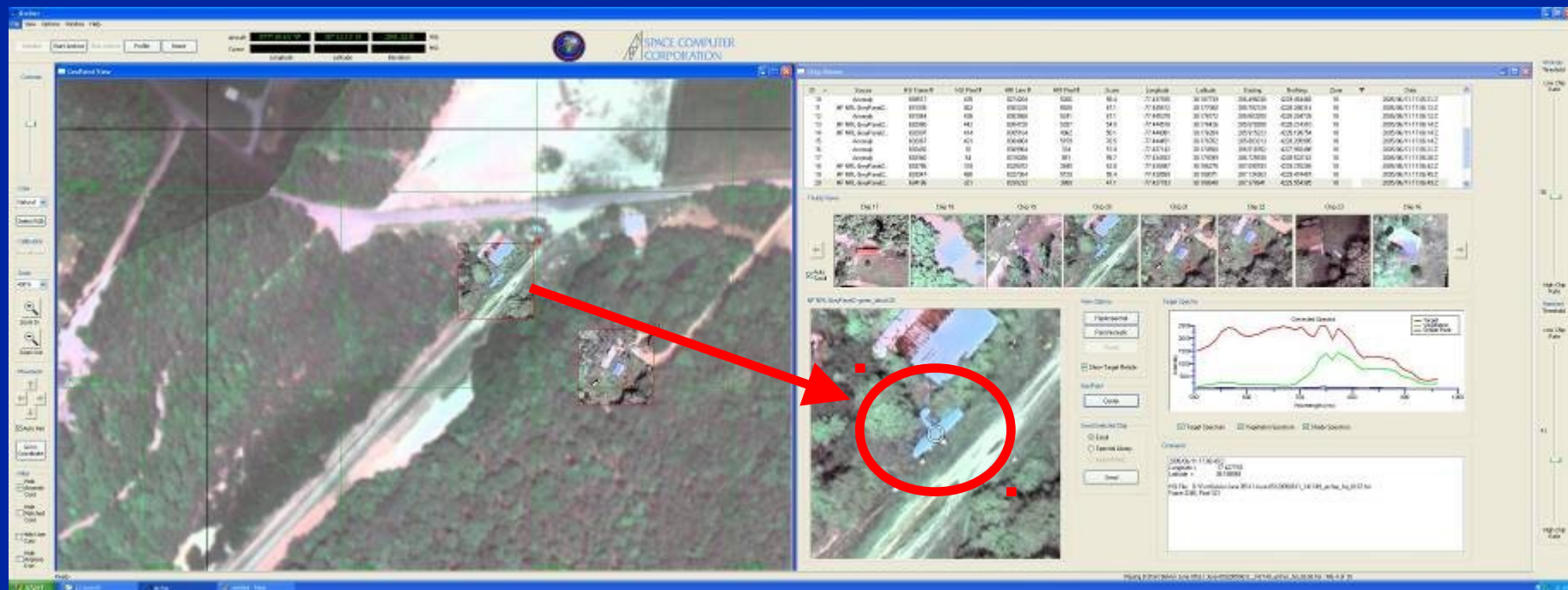
ARCHER



- ARCHER is a **non-invasive** reflective light technology
- ARCHER will **NOT** make detections:
 - Through solid materials (e.g., roofs, buildings, walls, floors, etc.)
 - Underground
 - Under snow
 - Under water
 - At night



ARCHER



**Fort AP Hill Test Mission:
Match Filter Detection**



ARCHER Change Detection



Sortie 1



Sortie 2



The Future for AF Aux

- Assume increased role in Civil Support mission
- More seamless integration within the Combined Air Operations Center and Air Force North (AFNORTH)



Civil Air Patrol



... performing missions for

Questions?

